Techcyte awarded patent, strengthening its AI training framework and accelerating development of digital diagnostics

OREM, UT, UNITED STATES, December 17, 2025 /EINPresswire.com/ -- Techcyte, a leading provider of AI-powered digital diagnostics for anatomic and clinical pathology, today announced the issuance of a new patent covering a novel approach to training medical imaging algorithms using explicit labeling. This innovation eliminates the need for exhaustive "background" labeling and enables more efficient, scalable creation of high-quality training datasets.

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>
> *Rick Smith, co-founder of Techcyte*

In conventional machine-learning workflows for digital pathology, annotators are often required to label not only the target objects, such as organisms, cells, or cellular features, but also background objects to ensure models learn correct distinctions. This process is labor-intensive, slow, and more prone to misclassification. Techcyte's patented method allows algorithms to be trained using only explicitly identified diagnostic objects, reducing the amount of manual annotation required while maintaining model accuracy and reliability.

"High-quality annotated data is the foundation of any clinical AI system, but creating it at scale has historically been one of the major bottlenecks in digital pathology," said Rick Smith, co-founder of Techcyte. "This patent formalizes an approach that lets our teams label what truly matters, diagnostic foreground objects, and train models more efficiently with far less contributive data."

The patented technique enhances the scalability of Techcyte's unified digital pathology platform by enabling faster iteration cycles, expanding the diversity of training sets, and supporting rapid development across new diagnostic modalities. The ability to train high-performing models using fewer labeled examples is especially valuable in areas where expert annotation is limited or where rare findings are critical to clinical decision-making.

"This advancement strengthens our ecosystem and accelerates our ability to bring new AI solutions to the laboratories and clinicians we serve," said Shane Swenson, CTO of Techcyte. "It

improves the speed and efficiency of our development pipeline, allowing us to support more disciplines and deliver tools that have the ability to meaningfully enhance accuracy, consistency, and turnaround times."

The patent underscores Techcyte's continued investment in foundational AI technologies that advance pathology practice and support its mission to unify and modernize workflows for human, veterinary, and environmental markets.

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About Techcyte

Techcyte is aiming to transform the practice of pathology through a unified, AI-powered digital platform that streamlines complex workflows, integrates with core lab systems, and enhances communication across the lab.

By partnering with leading laboratories, scanner manufacturers, diagnostic hardware providers, and AI developers,we deliver a unified digital pathology platform to labs and clinics around the world, furthering our mission to positively impact the health of humans, animals, and the environment.

Visit techcyte.com for more information.

Techcyte's anatomic and clinical pathology platform is for Research Use Only in the United States.

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